

WFO Non-Precipitation Weather Products Specification

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1. Introduction. This supplement describes regionally defined variations to [NWSI 10-515](#).
2. Non-Precipitation Outlook (product category HWO).
 - 2.1 Issuance Guidelines. In Central Region, the Hazardous Weather Outlook (product category HWO) is the product used to convey non-precipitation event potential.
 - 2.2 Issuance Criteria. Hazardous Weather Outlooks are described in the Central Region Supplement with [NWSI 10-517](#) (Multi-Purpose Weather Products Specification).
3. Non-Precipitation Watches (product category NPW).
 - 3.1 Issuance Guidelines. WFOs should issue a Non-Precipitation Watch when conditions are favorable (e.g., 50 % or greater chance) for a hazardous non-precipitation weather event to develop over part or all of the forecast area, but the occurrence is uncertain. If the forecaster is highly confident that the event will occur (e.g., greater than 80% confident), the forecaster should issue a warning as described in 5.2.2 of [NWSI 10-515](#).
4. Non-Precipitation Weather Warnings (product category NPW).
 - 4.1 Issuance Guidelines. See [NWSI 10-515](#)
 - 4.2 Issuance Criteria. In Central Region, supplemental advisory and warning criteria applicable to issuing non-precipitation weather warnings are defined as follows (i.e., 6.2.2.1 of [NWSI 10-515](#)).
 - 4.3 Non-Precipitation Warning Criteria.
 - A. Excessive Heat Warning – an Excessive Heat Warning (NPW) should be issued, if these conditions are observed or anticipated, and are expected to persist for at least a 48-hour period:

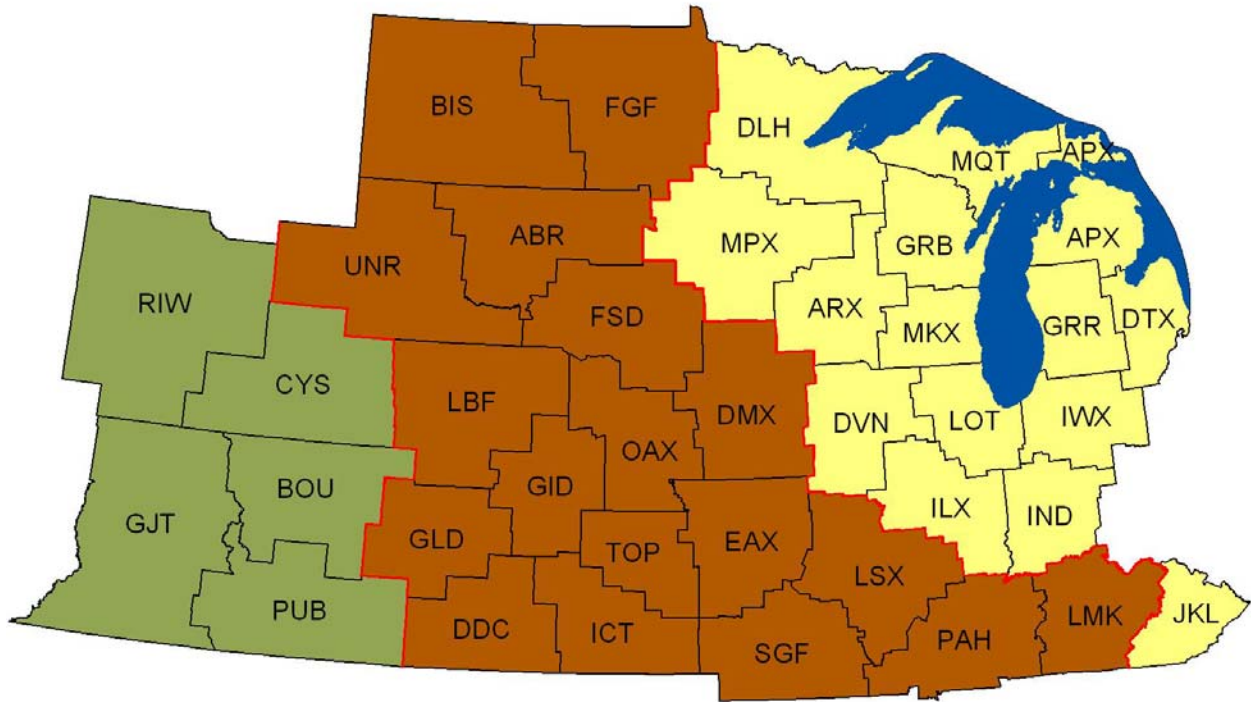


Fig. 1. Central Region office groups for Excessive Heat Warning Criteria

Central Region Excessive Heat Warning criteria:

- 1 Eastern (yellow shaded area)
 - Max Heat Index (HI) around 105 &
 - Min HI around 75 or higher
- 2 Central (brown shaded area)
 - Max HI around 110 &
 - Min HI around 75 or higher
- 3 Western (green shaded area)*
 - High Plains/Front Range/Valleys
 - Max HI around 105 &
 - Min HI around 75 or higher
 - Mountains
 - Max HI around 100 &
 - Min HI around 75 or higher

* WFO Grand Junction does not issue Excessive Heat Warnings for their four Utah counties.

If Advisory criteria are expected for 4 or more consecutive days, WFOs should issue an Excessive Heat Warning.

The use of the word “around” conveys a range of +/- two degrees on either side of the base criteria to give WFO forecasters flexibility especially during marginal events. Base criteria may also be adjusted, typically in urban areas, to match agreements with health

care partners. Adjustments to base criteria should not be made for cities with less than 200,000 people.

- B. Freeze Warning - The freeze/frost season is defined by the WFO Meteorologist in Charge or designee, based on input from partners in the agricultural and horticultural fields such as state extension services and/or state climatologists involved with agriculture. This determination should be made each season since the dates of potential frost/freeze impacts vary from year to year depending on antecedent conditions.
 - C. High Wind Warning - A High Wind Warning should be issued when the following conditions are observed or anticipated:
 - 1. For all areas of Central Region except for the mountain areas of Colorado, Wyoming and eastern Utah:
 - Sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or winds of 58 mph or greater for any duration.
 - 2. For mountain areas in Colorado, eastern Utah and Wyoming serviced by WFO Cheyenne, WFO Grand Junction, WFO Riverton, WFO Pueblo and WFO Boulder:
 - Sustained winds of 50 mph or greater lasting 1 hour or longer, or
 - Winds of 75 mph or greater for any duration.
5. Non-Precipitation Weather Advisories (product category NPW).
- 5.1 Issuance Guidelines. See [NWSI 10-515](#)
- 5.2 Issuance Criteria. In Central Region, supplemental advisory criteria applicable to issuing non-precipitation weather advisories are defined as follows (i.e., 7.2.2.1 of [NWSI 10-515](#)).
- 5.3 Non-Precipitation Weather Advisory Products.
- A. Heat Advisory – a Heat Advisory should be issued when the following conditions are observed or anticipated:

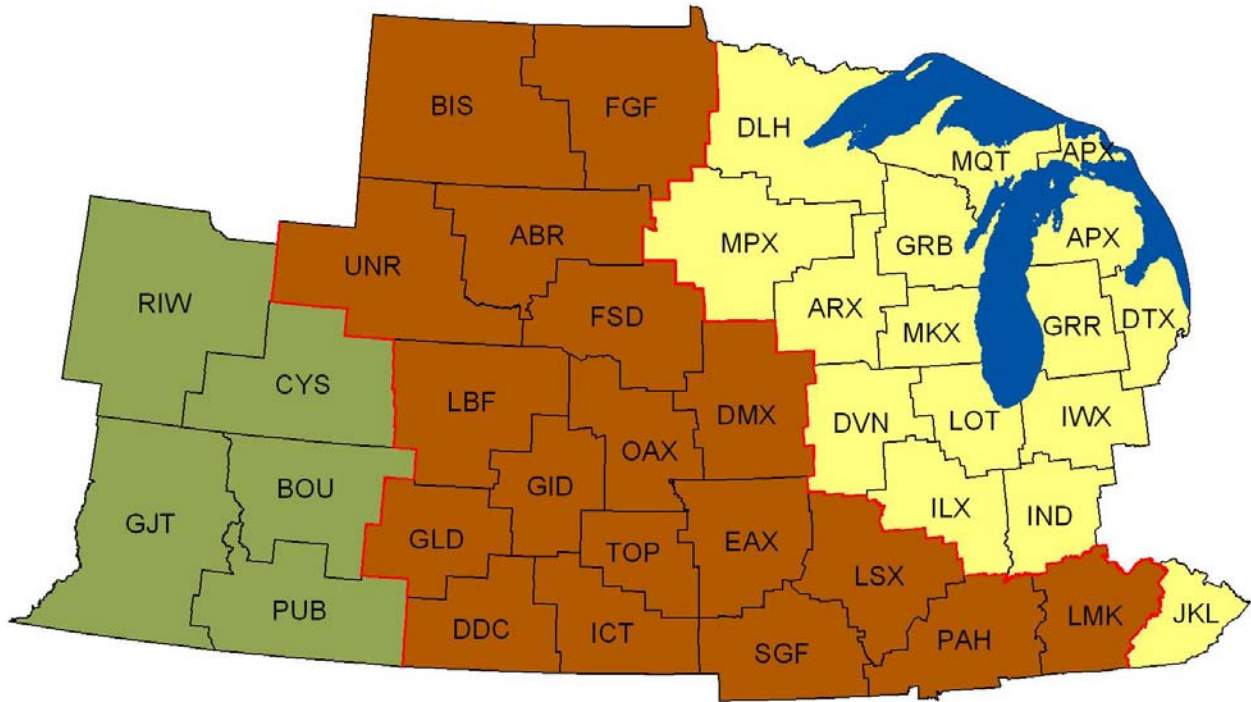


Fig. 2. Central Region office groups for Heat Advisory Criteria

Central Region Heat Advisory criteria:

- 1 Eastern (yellow shaded area)
 - Max HI around 100 or higher
- 2 Central (brown shaded area)
 - Max HI around 105 or higher
- 3 Western (green shaded area)*
 - Plains/Front Range/Valleys
 - Max HI around 100 or higher & Min HI around 75 or higher
 - Mountains
 - Max HI around 95 or higher & Min HI around 75 or higher

* WFO Grand Junction will issue a Heat Advisory for their four Utah counties when the Max HI is ≥ 105 and the overnight temperature is ≥ 80

If Advisory criteria are expected for 4 consecutive days or more, WFOs should issue an Excessive Heat Warning.

Longer durations of heat conditions just under advisory criteria can also pose a risk to the public. WFOs should collaborate with their neighbors and consider issuing a heat advisory to cover these conditions if they are expected to last for 4 consecutive days or more. These conditions are:

- 1 Eastern (yellow shaded area)
 - Max HI 95 to 100 for 4 or more consecutive days
- 2 Central (brown shaded area)
 - Max HI 100 to 105 degrees for 4 or more consecutive days
- 3 Western (green shaded area)*
 - Plains/Front Range/Valleys
 - Max HI 95 to 100 or higher & Min HI around 75 or higher for 4 or more consecutive days
 - Mountains
 - Max HI 90 to 95 or higher & Min HI around 75 or higher for 4 or more consecutive days

The use of the word “around” conveys a range of +/- two degrees on either side of the base criteria to give WFO forecasters flexibility especially during marginal events. Base criteria may also be adjusted, typically in urban areas, to match agreements with health care partners. Adjustments to base criteria should not be made for cities with less than 200,000 people.

- B. Frost Advisory - The freeze/frost season is defined by the WFO Meteorologist in Charge or designee, based on input from partners in the agricultural and horticultural fields such as state extension services and/or state climatologists involved with agriculture. This determination should be made each season since the dates of potential frost/freeze impacts vary from year to year depending on antecedent conditions.
- C. Wind Advisory - a Wind Advisory should be issued when the following conditions are observed or anticipated:
 1. For all areas of Central Region outside the locations noted in 5.3.C.2 and 5.3.C.3:
 - Sustained wind speeds of 30 to 39 mph lasting for 1 hour or longer, or winds of 45 mph to 57 mph for any duration.
 2. For mountain areas in western Colorado and eastern Utah serviced by WFO Grand Junction:
 - Sustained winds of 40 to 49 mph lasting for 1 hour or longer, or winds of 58 to 74 mph for any duration.
 3. For areas of Colorado other than the plains of northeast Colorado serviced by WFO Goodland and the valley areas of western Colorado serviced by WFO Grand Junction; all of Wyoming and the Black Hills of South Dakota:
 - Wind advisories are not issued for these areas.

- D. Lake Wind Advisory - Lake Wind Advisory threshold criteria may be lowered to 20 mph over water, as designated by the MIC and approved by the Chief, Integrated Services, W/CR1.

APPENDIX A - EXAMPLES

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1. Introduction. The following are examples of a non-precipitation watch, warning, and advisory.

2. Example 1 - Non-Precipitation Watch – INITIAL WATCH ISSUANCE.

WWUS75 KGJT 102133
NPWGJT

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE GRAND JUNCTION CO
232 PM MST SAT MAY 10 2008

...STRONG WINDS TO AFFECT EASTERN UTAH AND WESTERN COLORADO
WEDNESDAY AFTERNOON AND WEDNESDAY NIGHT...

.A POWERFUL EARLY SPRING STORM WILL DIG INTO THE PACIFIC COAST
TONIGHT AND INTO THE GREAT BASIN ON WEDNESDAY. BREEZY CONDITIONS
WILL PERSIST TONIGHT...WITH WINDS INTENSIFYING WEDNESDAY AFTERNOON
ACROSS THE HIGH VALLEYS AND MOUNTAINS OF EASTERN UTAH AND NORTHWEST
COLORADO...AS THE STORM APPROACHES THE REGION. ISOLATED
THUNDERSTORMS IN THE AFTERNOON COULD POTENTIALLY ENHANCE WIND GUSTS.

COZ003-004-009-013-017-UTZ023-025-028-110400-
/O.NEW.KGJT.HW.A.0011.080511T1200Z-080513T0000Z/
EASTERN UINTA MOUNTAINS UT-ELKHEAD AND PARK MOUNTAINS CO-FLATTOPS CO-
GRAND AND BATTLEMENT MESAS CO-LA SAL AND ABAJO MOUNTAINS UT-
ROAN AND TAVAPUTS PLATEAUS CO-TAVAPUTS PLATEAU UT-
UNCOMPAGRE PLATEAU/DALLAS DIVIDE CO-
INCLUDING THE CITIES OF...MONTICELLO
232 PM MST SAT MAY 10 2008

...HIGH WIND WATCH IN EFFECT FROM SUNDAY MORNING TO SUNDAY EVENING...

THE NATIONAL WEATHER SERVICE IN GRAND JUNCTION HAS ISSUED A HIGH WIND WATCH.
SOUTHWEST WINDS WILL INCREASE THROUGH THE DAY. BY THE AFTERNOON WIND SPEEDS
WILL AVERAGE 35 TO 55 MPH WITH GUSTS TO 75 MPH POSSIBLE OVER EXPOSED RIDGES
AND PASSES. IN ADDITION...ISOLATED AFTERNOON THUNDERSTORMS COULD PRODUCE EVEN
STRONGER GUSTS.

REMEMBER...A HIGH WIND WATCH MEANS CONDITIONS ARE FAVORABLE FOR A HIGH WIND
EVENT IN AND CLOSE TO THE WATCH AREA.

\$\$

COZ001-002-007-008-110400-
/O.NEW.KGJT.HW.A.0012.080511T1800Z-080512T0900Z/
CENTRAL COLORADO RIVER BASIN CO-CENTRAL YAMPA RIVER BASIN CO-
DEBEQUE TO SILT CORRIDOR CO-LOWER YAMPA RIVER BASIN CO-
INCLUDING THE CITIES OF...GLENWOOD SPRINGS AND CRAIG
232 PM MST SAT MAY 10 2008

...HIGH WIND WATCH FROM SUNDAY AFTERNOON TO LATE SUNDAY NIGHT...

SOUTHWEST WINDS WILL INCREASE THROUGH THE DAY. BY THE AFTERNOON WIND
SPEEDS WILL AVERAGE 25 TO 45 MPH WITH GUSTS TO 60 MPH POSSIBLE. IN
ADDITION...ISOLATED AFTERNOON THUNDERSTORMS COULD PRODUCE STRONGER GUSTS.

REMEMBER...A HIGH WIND WATCH MEANS CONDITIONS ARE FAVORABLE FOR A HIGH WIND
EVENT IN AND CLOSE TO THE WATCH AREA. MOTORISTS PLANNING TO TRAVEL WEDNESDAY
ACROSS EASTERN UTAH AND THE HIGH COUNTRY OF WESTERN COLORADO SHOULD BE
PREPARED FOR STRONG WINDS. BE ESPECIALLY CAUTIOUS IN HIGH-PROFILE VEHICLES
OVER MOUNTAIN PASSES AND NARROW CANYONS.

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3. Example 2 - Non Precipitation Freeze Warning. – INITIAL ISSUANCE

WWUS73 KEAX 120745
NPWEAX

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE KANSAS CITY/PLEASANT HILL MO
245 AM CDT SAT APR 12 2008

KSZ025-057-060-102>105-MOZ001>008-011>017-020>025-028>033-037>040-
043>046-053-054-121300-
/O.NEW.KEAX.FZ.W.0002.080412T0745Z-080412T1300Z/
ADAIR-ANDREW-ATCHISON-BATES-BUCHANAN-CALDWELL-CARROLL-CASS-CHARITON-
CLAY-CLINTON-COOPER-DAVISS-DE KALB-DONIPHAN-GENTRY-GRUNDY-HARRISON-
HENRY-HOLT-HOWARD-JACKSON-JOHNSON-LAFAYETTE-LEAVENWORTH-LINN-
LIVINGSTON-MACON-MERCER-MIAMI-NODAWAY-PETTIS-PLATTE-PUTNAM-RANDOLPH-
RAY-SALINE-SCHUYLER-SULLIVAN-WORTH-WYANDOTTE-
INCLUDING THE CITIES OF...ATCHISON...BETHANY...BOONVILLE...BUTLER...
CHILLICOTHE...CLINTON...HARRISONVILLE...KANSAS CITY...KIRKSVILLE...
MARSHALL...MARYVILLE...MOBERLY...OLATHE...PAOLA...ROCKPORT...
SEDALIA...ST JOSEPH...TRENTON AND WARRENSBURG.
245 AM CDT SAT APR 12 2008

...FREEZE WARNING IN EFFECT UNTIL 8 AM CDT SATURDAY MORNING...

THE NATIONAL WEATHER SERVICE IN PLEASANT HILL HAS ISSUED A FREEZE WARNING.

CLEARING SKIES AND LIGHT WINDS OVERNIGHT ALLOWED TEMPERATURES TO FALL BELOW THE FREEZING MARK AROUND MIDNIGHT AND THESE COLD TEMPERATURES WILL PERSIST THROUGH SUNRISE THIS MORNING. MANY LOCATIONS WILL EXPERIENCE A PERIOD OF SEVERAL HOURS WITH TEMPERATURES BELOW 28 DEGREES...RESULTING IN A KILLING FREEZE.

REMEMBER...A FREEZE WARNING MEANS HAZARDOUS WEATHER CONDITIONS ARE IMMINENT OR HIGHLY LIKELY.

A FREEZE WARNING IS ISSUED WHEN TEMPERATURES ARE EXPECTED TO BE AT OR BELOW 32 DEGREES DURING THE GROWING SEASON. TYPICALLY, TEMPERATURES OCCURRING AT OR BELOW 28 DEGREES FOR SEVERAL HOURS ARE NEEDED TO FREEZE WATER IN MOST PLANTS.

NOW IS THE TIME TO TAKE PRECAUTIONS TO PROTECT PLANTS THAT ARE SUSCEPTIBLE TO FREEZING TEMPERATURES. BRING THEM INDOORS IF POSSIBLE...OR COVER THEM WITH A TARP TO PROTECT THEM FROM THE COLD TEMPERATURES.

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4. Example 3 - Non Precipitation Heat Warning. - CONTINUATION

WWUS45 KSTL 092030
NPWLSX

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE ST LOUIS MO
330 PM CDT WED JUL 9 2008

.A HOT AND HUMID AIRMASS WILL REMAIN OVER THE REGION THROUGH
THURSDAY.

ILZ098>102-MOZ052-060>065-100900-
/O.CON.KLSX.EH.W.0007.000000T0000Z-080710T2300Z/
CALHOUN IL-FRANKLIN MO-JEFFERSON MO-JERSEY IL-LINCOLN MO-MADISON IL-
MONROE IL-ST. CHARLES MO-ST. CLAIR IL-ST. LOUIS MO-ST. LOUIS CITY MO-
WARREN MO-
INCLUDING THE CITIES OF...BELLEVILLE...EDWARDSVILLE...ST. CHARLES...
ST. LOUIS AND UNION
330 PM CDT WED JUL 9 2008

...EXCESSIVE HEAT WARNING REMAINS IN EFFECT UNTIL 6 PM CDT THURSDAY...

HOT AND HUMID CONDITIONS ARE EXPECTED THROUGH THURSDAY. DURING THURSDAY
AFTERNOON...EXPECT HEAT INDICES AROUND 105 FOR SEVERAL HOURS.
ACTUAL AIR TEMPERATURES WILL BE IN THE MID 90S. NOT MUCH RELIEF IS
EXPECTED DURING THE NIGHTTIME EITHER. OVERNIGHT LOWS WILL ONLY DROP
INTO THE MID TO UPPER 70S.

REMEMBER...AN EXCESSIVE HEAT WARNING MEANS HAZARDOUS WEATHER CONDITIONS
ARE IMMINENT OR HIGHLY LIKELY.

THE DURATION OF THE HEAT IS WHAT IS PARTICULARLY DANGEROUS TO HEAT
SENSITIVE GROUPS...MAINLY THE ELDERLY...THE VERY YOUNG AND THE
CHRONICALLY ILL. MEMBERS OF THESE GROUPS SHOULD STAY IN AIR
CONDITIONING. MAKE SURE TO CHECK ON FAMILY AND NEIGHBORS OFTEN
DURING THE VERY WARM AND HUMID WEATHER.

TAKE EXTRA CAUTION IF YOU PLAN ON BEING OUTDOORS...ESPECIALLY DURING
THE AFTERNOON AND EARLY EVENING HOURS. MAKE SURE TO DRINK PLENTY OF
NON-ALCOHOLIC LIQUIDS AND WEAR LOOSE FITTING... LIGHT COLORED
CLOTHING. WEAR A HAT AND SUNBLOCK TO PREVENT SUNBURN. IF
POSSIBLE...SPEND MORE TIME IN AIR CONDITIONED OR WELL VENTILATED
PLACES.

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5. Example 4 - Non Precipitation Wind Advisory - INITIAL ADVISORY (ISSUED PRIOR TO EVENT BEGINNING TIME).

WWUS73 KDLH 171915
NPWDLH

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE DULUTH MN
1113 AM CDT SAT MAY 17 2008

MNZ037-WIZ001-172200-
/O.NEW.KDLH.WI.Y.0005.080517T1800Z-080517T2200Z/
CARLTON/SOUTH ST. LOUIS MN-DOUGLAS WI-
INCLUDING THE CITIES OF...SUPERIOR AND DULUTH
1113 AM CDT SAT MAY 17 2008

...WIND ADVISORY IN EFFECT FROM 1 PM CDT THIS AFTERNOON TO 5 PM CDT THIS
AFTERNOON ...

THE NATIONAL WEATHER SERVICE IN DULUTH MN HAS ISSUED A WIND ADVISORY.
A NORTHEAST WIND OF 30 MPH...GUSTING AT TIMES TO 40 MPH WILL AFFECT
SOUTHERN ST. LOUIS...CARLTON AND DOUGLAS COUNTIES THIS AFTERNOON.

VEHICLES CAN BE DIFFICULT TO CONTROL AT TIMES IN THESE WINDS.
MOTORISTS SHOULD BE ESPECIALLY CAUTIOUS WHILE CROSSING BRIDGES AND
OVERPASSES.

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6. Example 5 - Non Precipitation Dense Fog Advisory - UPDATE.

WWUS45 KFSD 120845
NPWFSD

URGENT - WEATHER MESSAGE
NATIONAL WEATHER SERVICE SIOUX FALLS SD
345 AM CDT TUE FEB 12 2008

.HIGH PRESSURE WILL EXTEND FROM NEBRASKA NORTHEAST INTO THE NORTHERN PLAINS EARLY THIS MORNING...AND WILL PROVIDE THE AREA WITH LIGHT WINDS. WITH THE SNOW MELT ACROSS THE REGION...PLENTY OF LOW LEVEL MOISTURE WILL BE AROUND. ABUNDANT LOW LEVEL MOISTURE AND LIGHT WINDS WILL COMBINE TO PRODUCE WIDESPREAD FOG ACROSS THE AREA...MUCH OF WHICH HAS BECOME DENSE.

IAZ001>003-012>014-020>022-031-032-MNZ080-081-089-090-097-098-NEZ013-014-SDZ059>062-065>071-121500-
/O.CON.KFSD.FG.Y.0011.000000T0000Z-080212T1500Z/
BON HOMME SD-BUENA VISTA IA-CHEROKEE IA-CLAY SD-CLAY IA-COTTONWOOD MN-DAKOTA NE-DAVISON SD-DICKINSON IA-DIXON NE-HANSON SD-HUTCHINSON SD-IDA IA-JACKSON MN-LINCOLN SD-LYON IA-MCCOOK SD-MINNEHAHA SD-MURRAY MN-NOBLES MN-O'BRIEN IA-OSCEOLA IA-PIPESTONE MN-PLYMOUTH IA-ROCK MN-SIOUX IA-TURNER SD-UNION SD-WOODBURY IA-YANKTON SD-
INCLUDING THE CITIES OF...BERESFORD...PONCA...WORTHINGTON...WINDOM...SLAYTON...PIPESTONE...LIVERNE...JACKSON...STORM LAKE...SPIRIT LAKE...SPENCER...SIOUX CITY...ROCK RAPIDS...ORANGE CITY...LE MARS...IDA GROVE...HAWARDEN...YANKTON...VERMILLION...SIOUX FALLS...PARKER...MITCHELL AND CANTON
345 AM CDT TUE FEB 12 2008

...DENSE FOG ADVISORY REMAINS IN EFFECT UNTIL 10 AM CDT THIS MORNING...

FOG HAS DEVELOPED OVERNIGHT...AND HAS BECOME LOCALLY DENSE WITH VISIBILITIES AROUND A QUARTER MILE. THE FOG WILL BEGIN TO DISSIPATE SHORTLY AFTER SUNRISE THIS MORNING.

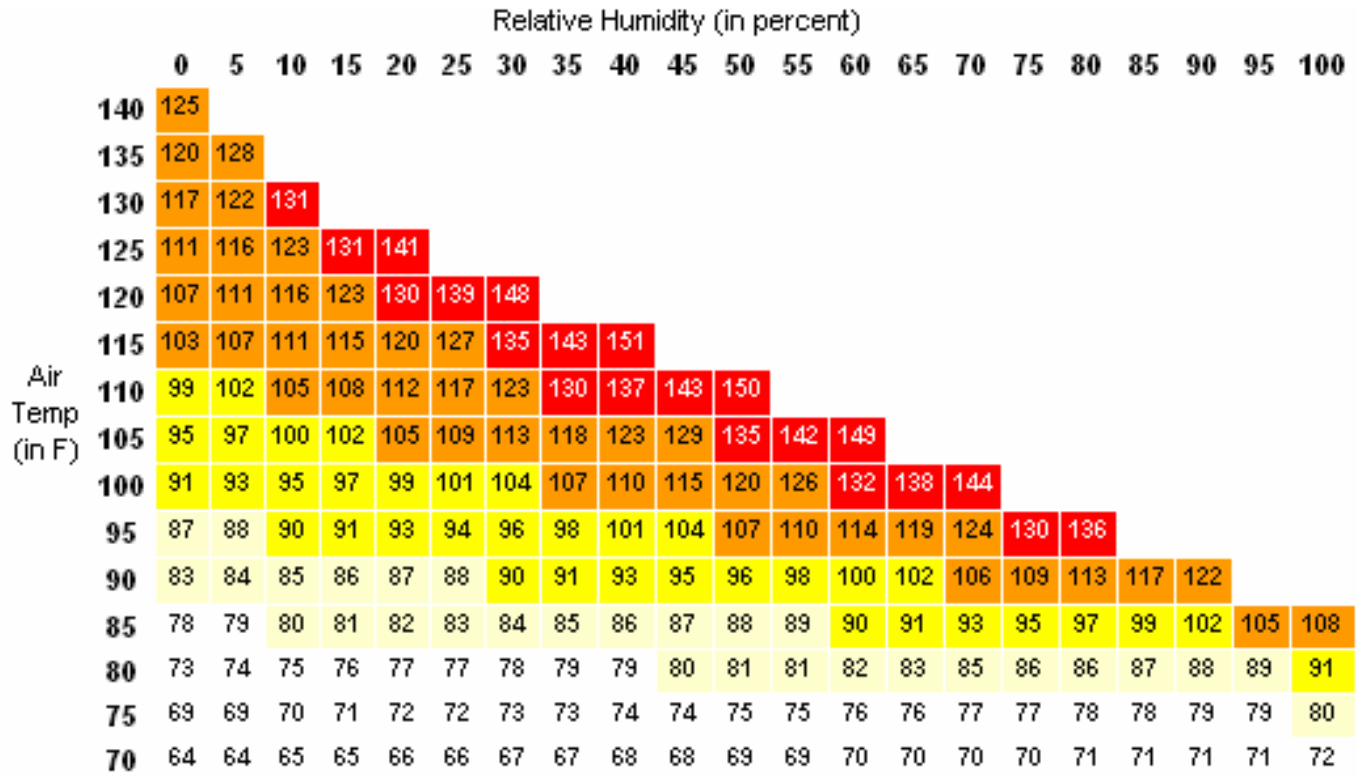
IN ADDITION TO THE DENSE FOG REDUCING VISIBILITIES...FOG CONDENSING ON THE RELATIVELY COLD SURFACES CAN MAKE ROADS SLIPPERY.

THE FOG SHOULD SLOWLY DISSIPATE THROUGH THE MORNING HOURS AS SOUTHWESTERLY WINDS INCREASE.

IF YOU ARE DRIVING...USE LOW BEAM HEADLIGHTS AND REDUCE SPEED IN THE DENSE FOG. ALLOW FOR EXTRA TIME TO REACH YOUR DESTINATION.

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APPENDIX B – HEAT INDEX CHART



<i>Heat Index</i>	<i>General Effect of Heat Index on People in Higher Risk Groups</i>
80 to 89° - Very Warm	Fatigue possible with prolonged exposure and/or physical activity.
90 to 104° - Hot	Sunstroke, heat cramps and heat exhaustion possible with prolonged exposure and/or physical activity.
105 to 129° - Very Hot	Sunstroke, heat cramps or heat exhaustion likely, and heatstroke possible with prolonged exposure and/or physical activity.
130° or higher - Extremely Hot	Heat/sunstroke highly likely with continued exposure.